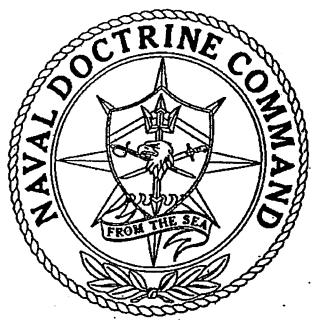
3-00-003

NAVAL DOCTRINE COMMAND Norfolk, Virginia





Naval Perspectives for Military Doctrine Development

by

Dr. James J. Tritten 4

September 1994

Approved for public release; distribution unlimited.

INVO QUELCON ENERGONID I

19941209 102

NAVAL DOCTRINE COMMAND Norfolk Virginia

Rear Admiral F.L. Lewis Commander

The work reported herein was prepared by the Naval Doctrine Command. This report reflects the opinion of the author only and does not represent the views or policies of the Naval Doctrine Command, the U.S. Navy and Marine Corps, or the Department of Defense.

Reproduction of all or part of this report is authorized.

This report was prepared by:

DR. JAMES JOHN TRITTEN

Joint/Combined Doctrine Division

Reviewed by;

JOHN/D. WOODS, COL, USMC

Division Director

oint Combined Doctrine Division

Released by;

C. M. deGRUY, CAPT, USN

Chief of Staff

		I		.			Form Approved
			DEDORT DOCUME	SUTATION DA	CE		OMB No. 0704-0188
REPORT DOCUMENTATION PAGE 1a. REPORT SECURITY CLASSIFICATION 1b. RESTRUCTIVE MARKINGS				3//2/10.0707070			
	UNCLASS					AC DECORA	
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT				
2b. CLASSIFICATION/DOWNGRADING SCHEDULE			APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED				
4. PERFORM	ING ORGANIZA	TION REPORT NUMBER(S)				REPORT NUMBE	
	NDC 3-0	0-003					•
6a. NAME O	F PERFORMING	ORGANIZATION	66.0FFICE SYMBOL	7a. NAME OF N	IONITORING ORG	ANIZATION	•
NAV	'AL DOCTRINE (COMMAND	N5A				
6c. ADDRES	S (CITY, STATE	, AND ZIP CODE)	1	7b. ADDRESS (CITY, STATE, AND ZIP CODE			
	8952 FIRS	T ST., STE 200					
	NORFOLK,	VA 23511-3790					
8a. NAME OF I	FUNDING/SPONSO	RING ORGANIZATION	86. OFFICE SYMBOL	9. PROCUREME	NT INSTRUMENT	T IDENTIFICATION	NUMBER
8c. ADDRES	S (CITY, STATE	, AND ZIP CODE)		10. SOURCE	OF FUNDING	NUMBERS	
				PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
		INITY ALL ANDROS TO STATE		LIEMEN (RU.		<u> </u>	
		IRITY CLASSIFICATION)					
		OR MILITARY DOCTRINE D	DEVELOPMENT				
	NAL AUTHOR(MES J. TRITTI						
13a. TYPE (TE DEPUBT	136, TIME COVERED	14. DATE OF REPORT (YY	MM DUI	15. PAGE COUN	17	
FINAL	n na om	FROM FEB 94 TO SEP 94	94,09,08	,,,	26		
	MENTARY NO	L	34,03,00	·	20		
17.	COSATI C	nnce	18.SUBJECT TERMS	0		ntify by block numbe	<u> </u>
FIELD	GROUP	SUB-GROUP	DOCTRINE	MILITARY DO		TACTICS	u
	<u> </u>		NAVAL DOCTRINE	STRATEGY		TECHNOLOGY	1.
			NAVY DOCTRINE	OPERATIONA	L ART		
THEORETICAL TREATMENT OF DIFFERENT TYPES OF MILITARY DOCTRINE, INCLUDING MULTI-SERVICE NAVAL DOCTRINE. THE TWO BASIC ASPECTS OF DOCTRINE ARE HOW A PROFESSION THINKS AND HOW IT PRACTICES. RESEARCH THEN TURNS TO WHAT INFLUENCES MILITARY DOCTRINE; CURRENT POLICY, AVAILABLE RESOURCES, CURRENT STRATEGY, CAMPAIGN CONCEPTS, CURRENT DOCTRINE, CURRENT THREATS, HISTORY AND LESSONS. LEARNED, STRATEGIC AND SERVICE CULTURE, CURRENT TECHNOLOGY, GEOGRAPHY, DEMOGRAPHICS, AND TYPES OF GOVERNMENT. NOTE THAT A MAJORITY OF THESE INFLUENCES ARE CURRENT AND NOT ENDURING LEADING TO A TENSION BETWEEN THE NEED TO BE RESPONSIVE TO CURRENT ISSUES AND THE SEARCH FOR PRINCIPLES. IN TURN, MILITARY DOCTRINE INFLUENCES TACTICS, TECHNIQUES, PROCEDURES, LOCAL TACTICAL DIRECTIVES, RULES OF ENGAGEMENT, TRAINING AND EDUCATION, ORGANIZATION AND FORCE STRUCTURE, ANALYSES, PROGRAMMING, CAMPAIGN PLANNING, STRATEGY, POLICY, AND OTHER FORMS OF MILITARY DOCTRINE. FINAL DISCUSSION AREA CONCERNS DEGREE OF DIRECTIVENESS THAT SHOULD BE FOUND IN DOCTRINE. THERE ARE NO EASY ANSWERS TO THIS QUESTION WHICH LIES AT THE HEART OF ANY CONTROVERSIES OVER DOCTRINE. CONCLUSIONS DEAL WITH WHAT, THEN, IS NAVAL DOCTRINE: COMMON CULTURAL PERSPECTIVE, FUNDAMENTAL PRINCIPLES, SHARED WAY OF HARMONIOUS THINKING, THE ART OF THE ADMIRAL, THE HEART OF NAVAL WARFARE.							
	BUTION/AVAIL	ABILITY OF ABSTRACT	USERS	i	T SECURITY CL	ASSIFICATION	SSA AMERICAN CONTRACTOR OF THE STATE OF THE
				22C. OFFICE SYMBOL			
	JAMES J. 1			(804) 445-05			N5A

NAVAL PERSPECTIVES FOR MILITARY DOCTRINE DEVELOPMENT

by James J. Tritten¹

Introduction

The purpose of this paper is to discuss the term military doctrine for a naval audience that is less than familiar with the term and unsure of its impact. It is also written for other writers of military doctrine so that they will understand current <u>naval</u> doctrine development. This paper will, first, review the already approved military definitions of doctrine to provide the reader with a sense of how doctrine is viewed by the military profession. From a variety of terms that include the word doctrine, it will then, second, set military doctrine for the Navy in the context of all of the possible types of doctrine. Third, this paper will consider what influences the various types of military doctrine, including doctrine in the Navy. Fourth, the paper will consider what, in turn, is influenced by military doctrine. Fifth, the paper will consider what military doctrine is <u>not</u>; for example, doctrine is <u>not</u> tactics. Sixth, the paper will consider standardization of military doctrine, and finally, the paper concludes with the use of the term military doctrine by the Navy. With properly developed military doctrine we gain professionalization, without relinquishing freedom of judgment that the commanders need to exercise individual initiative in battle.

Doctrine is defined in the dictionary as "a principle or body of principles presented by a specific field, system or organization for acceptance or belief." From an organizational perspective, doctrine is those shared beliefs and principles that define the work of a profession. Principles are: (1), basic truths, laws, or assumptions; (2), rules or standards of behavior; (3), fixed or predetermined policies or modes of action. Professions are occupations and vocations requiring training and education in a specialized field--training and education in the doctrine of that profession. Doctrine is the codification of what a profession

Avail and/or Special

D

The views expressed by the author are his alone and do not necessarily represent those of the U.S. government, Department of Defense, or the U.S. Navy. The author would like to acknowledge the assistance and contribution to this paper of Captain Wayne Hughes, USN (Ret.) from the Naval Postgraduate School (NPS); Dr. Susan Canedy, U.S. Army Training and Doctrine Command (TRADOC); Dr. Edward J. Marolda, Head of the Contemporary History Branch, Naval Historical Center; Captain Peter Swartz, USN (Ret.), at the Center for Naval Analyses (CNA); Captain Thom Ford, USN, at the U.S. Army Command and General Staff College (USAC&GSC); Commander Mike Vitale, USN, Joint Doctrine Division (J-7/JDD), Joint Staff; Lieutenant Colonel Dave Mirra, USMC, at the Doctrine Division, Marine Corps Combat Development Command (MCCDC); Professor Irving Brinton Holley, Jr., Duke University; Captain Jack McCaffrie, RAN, Director General of the Royal Australian Navy Maritime Studies Program; as well as by the staff of the Air-Land-Sea Application (ALSA) Center, and Major John Blum, USMC and Commander Charles Allen, USN at the Naval Doctrine Command (NDC).

thinks (believes) and does (practices) whenever the profession's membership perform in the usual and normal (normative) way.

Generally, society lets professions regulate their own activities if there is a doctrine which defines how the profession will do its work and there is some form of management and oversight of the activities of those who belong to it. Hence, the medical profession generally regulates its own profession and sets its own doctrine. On the other hand, there is a separate and additional formal medical doctrine for physicians in the armed forces. Other professions are generally self-sufficient with minimal oversight by government, representing society, until such time as there is a proven need for such oversight.

Because of a number of special circumstances, the military as a profession is subject to more than the average amount of oversight by government. First, the military is commissioned by the government that provides the military profession with all of its resources. Second, generally governments limit the number of military organizations in a country by prohibiting private military or even military-like organizations. Third, society provides to the government and the military its most treasured possessions, its sons and daughters, who may be asked to serve under extremely hazardous circumstances. Fourth, the military profession is often called upon to kill and to be willing to expend the lives of its own in the name of the government and the society that it represents. Fifth, there is the historically-proven need for society and government to monitor the activities of even the most well-meaning and loyal militaries.

Like other professions, militaries have always had doctrine which defines how they do their job. Unlike some professions however, military doctrine does not have one standard approach nor common thread which can be found in all nations and in all military Services. In some cases, doctrine in the armed forces has been written and centralized. In other cases, doctrine has been unwritten and decentralized. In other words, doctrine in the military profession is an extremely complex concept, one that is currently undergoing a renaissance in our country.

Military doctrine in the U.S. has been consciously made a province of the uniformed Services rather than the civilian Office of the Secretary of Defense. At one time, the Chairman of the Joint Chiefs of Staff (CJCS) thought about issuing a document entitled Basic National Defense Doctrine, Joint Publication 0-1, but the draft version of this publication was never approved and eventually efforts to issue it stopped.² The draft Basic National Defense Doctrine defined doctrine as "an accepted body of professional knowledge." This publication then further refined various types of military doctrine as developed in authoritative subordinate publications.

Types of Military Doctrine

The official starting point in the U.S. armed forces for a definition of doctrine is the Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02.4

According to this authoritative publication, doctrine is: "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application." This definition is consistent with others used by the U.S. Army, U.S. Air Force, U.S. Marine Corps, and U.S. Navy.

From this Joint Publication 1-02 definition, or rather from what is missing from this definition, comes a recognition that doctrine applies at every level of warfare: strategic, operational, or tactical. Hence, military doctrine can exist at the strategic-level, where it will interact with policy. Generally, military officers would prefer to consider doctrine from the "purely" military perspective--without any consideration of policy. At the tactical-level, there may even be a purely military perspective, but as the level of warfare exceeds that of the immediate battle area and elevates to issues of importance to the campaign or overall war, it becomes more difficult to separate the "purely" military aspects.

Doctrine has multiple definitions in Joint Publication 1-02 and we will need to consider them all before we fully understand what the term means to the U.S. armed forces. For example, in addition to the general definition of doctrine, there is another Joint Publication 1-02 definition for joint doctrine: "fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and Joint Staff." The key to understanding joint doctrine is that it is not joint doctrine until promulgated by the CJCS. Similarly, Marine Corps doctrine would not be Marine Corps doctrine until it is promulgated by the Commandant of the Marine Corps.

According to the Joint Chiefs of Staff's Joint Warfare of the US Armed Forces, Joint Publication 1, "Joint doctrine deals with the fundamental issues of how best to employ the national military power to achieve strategic ends...Joint doctrine offers a common perspective from which to plan and operate, and fundamentally shapes the way we think about and train for war" [emphasis added]. From this definition, we see that there is a hierarchy to military doctrine; joint doctrine applies only to that level of warfare which can achieve strategic ends. Generally that would be the strategic and operational-levels of warfare, thus implying that the tactical-level of warfare remains the province of the individual Services.

Since it is possible that there may be occasions when military Services might desire to cooperate outside of the approval authority of the CJCS, provisions have been made for multi-Service doctrine: "fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It is ratified by two or more Services, and is promulgated in multi-Service publications that identify the participating Services, e.g., Army-Navy doctrine." Multi-Service doctrine is primarily designed for the operational or strategic-levels of warfare. Although much of the thinking behind multi-Service doctrine is pre-Goldwater-Nichols Act (1986), one might conclude that multi-Service doctrine will die on the vine and be replaced by joint doctrine.

A good example of cooperation between the Services to form multi-Service doctrine was the development of the AirLand Battle Doctrine. The Army Training and Doctrine Command (TRADOC) and Air Force Tactical Air Command (TAC) started the multi-Service Air-Land Forces Applications Agency (ALFA) in 1975. This multi-Service doctrine effort expanded into the current Air-Land-Sea Application (ALSA) Center. Another example of multi-Service doctrine development is the Center for Low Intensity Conflict (CLIC), the Army and Air Force focal point for certain categories of military operations other than war. One might conclude that it will only be a matter of time before these types of organizations will be absorbed by the Joint Warfighting Center (JWFC), but there are other views on the longevity of such doctrine.

With the formation of the Naval Doctrine Command (NDC), the Navy now has its first centralized command responsible for the publication of doctrine for the fleet. Since the Naval Doctrine Command is a multi-Service command and its Naval Doctrine Publications (NDPs) bear the signatures of both the Chief of Naval Operations and the Commandant of the Marine Corps, it is obvious that some of the output of the NDC will be multi-Service doctrine. The Navy will simultaneously make NDC the central point of focus for Navy doctrine, while the Marine Corps has a separate doctrine division at their Marine Corps Combat Development Command (MCCDC).

Although one might question the need for multi-Service doctrine in this era of jointness, the two (joint and multi-Service) types of doctrine can coexist and benefit from each other. For the Navy currently, it is far more palatable to develop doctrine in the context of the familiar Navy-Marine Corps team rather than in the new joint environment where the other two Services, the Joint Staff, and all the Commanders-in-Chief (CinCs) would have an input.

Numerous other Service documents promulgate Service doctrine for specific tasks and missions. The individual military Services appear to have the primary responsibility for development of tactical-level doctrine but there may be some blurring of lines of responsibility. For example, the Commander-in-Chief of the U.S. Special Operations Command probably develops some tactical-level doctrine for special operations forces. Within the context of joint doctrine, the Commander-in-Chief of the new U.S. Atlantic Command is developing tactical-level doctrine for tactical-level joint task forces. Similarly, Services cannot help but intrude into the operational and even strategic-levels of warfare as they attempt to explain their roles in training and equipping forces. In turn, this means that Service doctrine cannot help but influence joint doctrine.

Within each Service, various combat arms have their own individual doctrine; e.g. submarines operate under submarine doctrine, as well as combined arms doctrine where the different combat arms within an individual Service operate in a coordinated fashion; i.e. air, surface, and subsurface operating under a Navy combined arms antisubmarine warfare doctrine.

Since doctrine already accounts for more than one military Service, it should not surprise us that it also has a multinational dimension. The term multinational refers to anything international; i.e. bilateral, regional, global, ad hoc, standing alliances, etc. Multinational doctrine has always been important. During the Cold War, campaigns in and around Europe would have been conducted primarily in accordance with NATO combined doctrine, a multinational form of doctrine, rather than in accordance with any national military doctrine. Today, the importance of multinational operations is recognized by the inclusion of a separate chapter on this subject in the basic doctrinal publication for joint operations.¹⁴

Joint Publication 1-02 defines combined doctrine: "fundamental principles that guide the employment of forces of two or more nations in coordinated action toward a common objective. It is ratified by participating nations." Here it would appear that the emphasis is on the formal aspect of combined doctrine being that which is officially promulgated by the participating nations. Combined doctrine is <u>not</u> officially such until formally published by competent multinational authority. Furthermore, combined doctrine is but one type of possible multinational doctrine, although it is the most common. Combined doctrine does <u>not</u> necessarily have to be associated with NATO; indeed combined doctrine exists for other multinational defense arrangements outside of the NATO umbrella; e.g. with South Korea.

According to the NATO Glossary of Terms and Definitions, NATO defines doctrine as: "fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgment in application." This generic definition does not change the basic U.S. definition except in the deletion of reference to national objectives. Further, it is not clear from this definition if NATO doctrine includes all levels of warfare, or if like joint doctrine, it is fundamentally oriented towards the strategic and operational-levels.

What is clear, however, is that NATO doctrine, as a form of combined doctrine, applies in a NATO context; i.e. if national forces operate under NATO command, they operate under NATO doctrine and not normally under national joint or Service doctrine. This is important since, under most circumstances of warfare involving the U.S. in and around Europe, our assumption is that U.S. forces will be a part of a NATO and not national command structure. If, on the other hand, NATO lacks a combined doctrine for a specific task, then some national military doctrine may be used by the participants until such time as an approved NATO combined doctrine is promulgated.

In the case of European nations operating together outside of NATO, such as their efforts under the Western European Union (WEU) in the Adriatic, existing NATO combined doctrine is being used in the absence of any WEU military doctrine. This case of using other doctrine exists for forces operating under United Nations (UN) auspices since there is no approved UN military doctrine either. The recent operations in the Adriatic have caused a number of European nations to recognize the need to create a multinational military doctrine for peacekeeping operations outside of the NATO environment. ¹⁶ Hence, military doctrine exists or is being planned for use in ad hoc multinational contexts.

Multinational doctrine, in its many possible forms, has an extremely important role to play for the U.S. armed forces. As we respond to crises under the auspices of some international organization, alliance, or ad hoc coalition, we will need some form of multinational doctrine to guide our actions. In the absence of formal multinational doctrine, it is entirely permissible to substitute some form of national military doctrine, including U.S. joint doctrine, as a temporary surrogate.

In the past, military doctrine has also been officially defined in certain functional-specific cases. For example, both the U.S. and NATO define tactical air doctrine: "fundamental principles designed to provide guidance for the employment of air power in tactical air operations to attain established objectives." Although there may not be additional formal functional doctrinal definitions in Joint Publication 1-02, such written functional doctrine still exists in a variety of Service and allied publications for the conduct of amphibious warfare, air warfare, space warfare, etc. There is also joint and Service functional medical, logistics, intelligence, etc., military doctrine. Remaining Service functional doctrine is gradually being replaced by joint doctrine and existing Service functional doctrine should be seen as amplification.

Due to the complexity of the different types of doctrine, we must be very specific when discussing the type of military doctrine to which we refer and, in addition, we may have to specify the level of warfare to which the doctrine applies. There are two essential elements in all forms of military doctrine: how the military profession thinks about warfare and how it acts when in combat. Without each element, doctrine would be incomplete. If it were merely how we thought about war, such a doctrine would merely be the unfulfilled wishes of the leadership. If it merely codified how we acted, without having created a theory, it might represent the documentation of mob violence.

What Influences Military Doctrine?

We can also get a sense of what is meant by military doctrine by a review of other terms which use the word "doctrine" in their definition. For example, it appears that doctrine is driven by concepts. ¹⁷ Consider the following U.S./NATO definition of "tactical concept: a statement, in broad outline, which provides a common basis for future development of tactical doctrine." Hence we can infer from this definition that concepts drive military doctrine. Concepts can come from a number of areas. For example, concepts to apply to military doctrine can come from: current policy, available resources, current strategy and campaigns, current doctrine, threats, history and lessons learned, strategic culture, fielded and/or emerging technology, geography and demographics, and types of government.

Policy

National policy is: "a broad course of action or statements of guidance adopted by the government at the national level in pursuit of national objectives." Current policy is derived from standing national policy and in turn it drives military doctrine—but in complicated ways.

For example, the National Military Strategy of the United States, that dates from early 1992¹⁸ and the January 1993 National Security Strategy of the United States¹⁹ ought to be standing policy that both drive military doctrine. These documents, however, were all issued by the previous administration and may, or may not, reflect the thinking of the current government. Similarly, the Weinberger Doctrine²⁰ outlining conditions that govern the commitment of U.S. troops represents a well-thought-out policy that also ought to be standing policy, but may in fact have been the views of only one administration or the Secretary of Defense within that administration.

We need to consult reports such as the current administration's Secretary of Defense's Annual Report to the President and the Congress²¹ and the Report of the Bottom-Up Review²² in order to ascertain how much of what ought to be standing policy was really then-current policy and no longer is applicable. Since all current governments will attempt to shape military programming, presumably there will be updated versions of the national security and national military strategy documents reflecting the military policy of the current administration.

In the absence of updated government policy documents, militaries must search through the policy pronouncements of their governmental leaders in order to gain insights and obtain guidance. This need to scour administration public statements occurs in the early years of any new administration when it has not yet had the maturity to issue fully-blown policy statements which would give full guidance to the military. The source of these pronouncements can be varied: speeches, op-ed pieces, brief articles, etc. Indeed, governments will often use these devices as policy "trial balloons" prior to any issuance of a final white paper.²³ Yet doctrinal writers cannot wait for fully developed policy documents if these writers are concerned with military doctrine for future forces.

Similarly, the policies that influence military doctrine may not necessarily be national policies—hence military Services need to also look at international policy pronouncements. When U.S. armed forces operate in a multinational environment, they need multinational policy guidance from the international organization, alliance, or ad hoc coalition that has provided the authority for the military operation itself. This was exactly what happened to U.S. armed forces during the termination phase of Operation Desert Storm when they stopped the offensive having achieved United Nations goals.

Resource Restraints

Further complicating the policy input to military doctrine is the relationship of policy statements to programming for future forces. For example, the above cited publications are all policy statements issued by governments in a programming context. Hence, writers of military doctrine must separate the programmatic aspects of such documents from the doctrine for current operations. For example, in February 1984, the *Annual Report to the President and the Congress, Fiscal Year 1985* issued by then-Secretary of Defense Casper W. Weinberger, ²⁴ contained the programmatics for defending the United States with space-

based defensive weapons. Since these weapons did not exist, we should not assume that a military doctrine for their employment currently existed. Furthermore, defense of the United States was governed by doctrine that primarily made use of offensive and not defensive weapons. On the other hand, when the decision was made to exploit new technologies allowing for space-based defensive weapons, it would have been irresponsible for government not to explore doctrinal issues for their use.

It is also sometimes, but not always, irresponsible for the military to develop doctrine for weapons for which there are no available resources. For example, continued doctrinal development by the Army for nuclear warfighting on the battlefield, could be construed as irresponsible in the face of the denuclearizing of the Army and the signal that it would send to other nations of the world. On the other hand, one could argue that doctrinal development for nuclear warfighting is necessary as long as such weapons exist in the arsenals of any nation. Clearly, the lack of resources in the Army for offensive nuclear warfighting need not preclude the continued development of doctrine for fighting in a nuclear environment. The priority of such doctrinal development might be significantly less than military doctrine associated with current strategy and planned campaigns.

Strategy

Current strategy and subordinate campaign concepts clearly should have a major influence on military doctrine. One of the finest examples of strategy and campaign concepts driving doctrinal development is that of amphibious warfare in the 1920s and 1930s.²⁵ As the Joint [Army-Navy] Board designed war plans for the relief of the Philippines in the period before World War I, the Navy General Board provided an input that such plans could include the seizure of unoccupied islands, by the Marine Corps, which would support the forward movement by the fleet. Following the war, Major Earl H. Ellis, USMC, developed a concept for the seizing of occupied islands as well. This concept was approved by General John A. Lejeune, Commandant of the Marine Corps and, over the next thirteen years, integrated into revised war and campaign plans and eventually made a part of programming for the force structure necessary to carry out opposed landings.

Today, we are faced with similar large-scale changes in military doctrine necessitated by large changes in the international security environment. With our new regionally-focused defense strategy, we now need new multinational doctrine for a host of newly important tasks to be performed in conjunction with ad hoc coalitions and existing combined doctrine. Strategy and campaign concept inputs to military doctrine must have the full benefit of exercises, games, and simulations done in support of strategy and campaign development.

On the other hand, current strategies tend to reflect programmatics in a way that may actually preclude doctrinal development. For example, current governmental policy statements have virtually ignored the threat from a resurgent/emergent global threat (REGT)²⁶ and the associated strategy for reconstitution for a global warfighting capability once advanced by the former administration. In the absence of programmatics supporting

reconstitution and a total shift in focus toward limited war, should not the military internally continue to develop doctrine for global war?²⁷

As military doctrine development matures, existing campaign concepts will have less impact on new doctrine. In a perfect world, strategy should have the influence on military doctrine which should in turn drive campaign planning. With the overwhelming need to develop new doctrine today, it is likely that we will turn to existing campaign concepts to help us develop the initial military doctrine.²⁸

Existing Doctrine

Another influence on doctrinal development is that of the current doctrine itself. As the U.S. Navy currently prepares its first systematic Service-wide written military doctrine, it cannot help being influenced by the existing military doctrine of the U.S. Marine Corps. After all, certain Navy forces exist solely for the support of the Marine Air Ground Task Force (MAGTF), and the NDC is a multi-Service command. Similarly, the U.S. Navy will be influenced by existing military doctrine in the Army especially, since Army doctrine has been a major influence in joint and combined doctrine and, presumably, existing joint and combined doctrine will be reflected in any new naval doctrine.

Navy doctrine will obviously be influenced by existing joint and combined doctrine—especially that doctrine that has a maritime flavor. Where there is existing practice in joint and combined doctrine, we should expect to see identical Service doctrine, if Service doctrine is created for every possibility. Where existing joint and combined doctrine are agreed to be all that is necessary for the conduct of a specific tasks, then there will be no need for a Service-specific or multi-Service doctrine on the same subject. If one Service already has an acceptable doctrine for a functional area common to another Service, there is no reason that the second Service could not adopt it *in toto*, or as multi-Service doctrine, or borrow heavily from it in their own doctrinal publication. As an example, in the past, the Army's expertise on chemical warfare doctrine has generally been recognized by the other Services.

Emerging U.S. Navy doctrine will be influenced by existing informal naval doctrine.²⁹ When Navy ships form into task groups and task forces in order to conduct their operations, they already have customary and formal doctrine that translates the current policies, available resources, current strategy and campaign concepts, threats, lessons learned, fielded and/or emerging technologies, and strategic culture into the tactics, techniques, and procedures (TTP)³⁰ that are used by the fleet forces to carry out individual unit tasks. Indeed, the formation of ships into task groups and task forces itself is existing Navy doctrine.

Other Influences

Threats tend to drive programmatics, strategy, and campaign planning but, in today's uncertain world, the threat has become more difficult to visualize. During the Cold War, we focused our military programs on the major threat and considered others as a lesser included

case. Doctrinal development followed programmatics, resulting in ineffective development of doctrine for limited wars and military operations other than war.

If we totally shift our focus from general war to limited war, we not only make it more difficult to develop doctrine for the general war (since it is too unlikely), but we also must simultaneously focus on a number of different types of threat for which there may not be a single valid military doctrine. Hence, the shift to multiple possible threats will necessitate a doctrinal renaissance in the U.S. armed forces.

One of the major inputs to this doctrinal renaissance must be a considerable input from history and the lessons learned for the new tasks that our forces are asked to perform. Since most of these tasks will be executed*in a multinational and joint context, we must include lessons learned beyond that of the individual Service perspective. Lessons learned do not come only from actual combat—we factor in the lessons from military operations other than war, major exercises, and simulations and games. The latter two form the "history" of wars and campaigns not yet fought.³¹ Lessons learned do not necessarily need to be limited to that of our own country but should reflect those learned by other nations and those of a historical context.³² Such distillations of military history, such as the principles of war, are a major input into doctrine. Principles of war are abstractions of the lessons learned from the history of armed conflict. Indeed, the applicable secondary literature needs to be constantly reviewed to ensure that new lessons are indeed learned.³³

Sometimes limiting, but always influencing military doctrine is the strategic culture of a nation and a specific military Service. Over time, nations and various Services have developed a specific style of fighting. Military operations research has long recognized these differences, and weights have often been assigned to forces of various nationality.³⁴ One nation that has generally been ranked rather highly has been Israel. Given the natural tendency of its warriors to excel, Israel has emphasized an offensive doctrine for warfare that might prove disastrous to another nation of similar size. On the other hand, the excellent military doctrine of Switzerland might serve as a model for new Russian military doctrine in which defense of the homeland is accomplished on one's own soil and with only a defensive capability at the strategic-level of warfare. Service culture provides a similar input.

Just as current strategy and threats influence military doctrine, so does current technology. With the advent of modern aircraft with extremely accurate delivery systems, we no longer need a doctrine for massed bomber formations attacking enemy cities. Modern bomber doctrine might learn from that of equally covert submarines searching out high value and defended targets. Yet emerging technology may negate altogether the role of the penetrating bomber in favor of unmanned systems.

Although one area of doctrinal development concentrates on fielded technology, there is an equally important area of military doctrine that is concerned with future weapons systems. One approach is for industry or the research community to present the technological opportunities to the military who will then consider a doctrine for the employment of such

systems. In this case, we benefit from visionary approaches to issues but often pay the price of advocacy for systems for which a doctrinal, or other, need has not been established.

Another approach is to consider the doctrine for warfare that a nation would like to fight and to then refine it in terms of capabilities desired—a concept-based requirements system. The role of industry would then be to respond to doctrinal development. In this case, the conservatism of the bureaucracy engenders a significant risk of missed opportunities to exploit emerging technologies.

Geography and demographics have a major influence on most of the above, but should not be overlooked. The insular position of Great Britain has highlighted the importance of resea power. The extent of its borders and its population density have shaped the air defense doctrine of Russia in favor of point defenses. The character of our people have shaped American and Chinese military doctrine's emphasis on technology in very different ways—American emphasis on high technology and the Chinese emphasis on less complicated systems produced in massive quantities.

Finally, the type of government influences military doctrine. Modern democracies simply cannot have military doctrines which waste manpower in battle. Modern fundamentalist states, however, can afford such doctrines. As the United States continues down the path of a long peace, its public may be less and less inclined to support responses to crises with the possibility of long periods of involvement and the loss of many American lives. Rightly or wrongly, if this is how the American public will act, the military must react with doctrine for crisis response that will result in the minimal amount of risk to American lives. On the other hand, the military also needs doctrine for operations that may extend beyond the initial surmised period and result in more than predicted casualties.

In summary, the above eleven inputs to and influences on military doctrine are slanted toward topical vice enduring considerations—seven of these eleven inputs are not enduring. It is current policy, available resources, current strategy, current campaign concepts, current doctrine, current threats, and fielded and emerging technology that influence doctrine—not the policies of the former government, unavailable resources, the strategy and campaign concepts of the past war, yesterday's doctrine, former threats, and obsolete technology that shape doctrine.

Balancing topical considerations are the enduring lessons learned from history, the strategic culture of the nation and the individual Service, geography and demographics, and the type of government. Each of these less topical inputs is more difficult, but not impossible to change. For example, history can be re-studied and new lessons learned or the strategic culture of a nation or individual Service can be changed by organizational restructuring and hardware. Geography and demographics can change as nations adjust borders or borders become porous. As much as we take it for granted that the type of government will not change in the U.S., this has not always been the case for nations with which we have fought. It was only a little over 100 years ago that army officers schooled at West Point found

themselves unable to fight under a taught military doctrine because they were no longer in the service of the same nation.

What Does Military Doctrine Influence?

Military doctrine in turn affects a number of subordinate concepts as well as some of the higher-level concepts driving doctrine itself. Among those concepts affected are tactics, techniques, procedures, local tactical directives, rules of engagement, training and education, organization and force structure, analyses, programming, campaign planning, strategy, and policy. None of these, incidently, are themselves military doctrine.

If we return to dictionary definitions, we learn that military doctrine drives TTP. The definition of "joint tactics, techniques, and procedures" [JTTP] is: "the actions and methods which implement joint doctrine and describe <u>how</u> forces will be employed in joint operations. They will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and Joint Staff" [emphasis added].

TTP comprise the bulk of the tactical library available to the fleet officer. Tactics are "the employment of units in combat; [and] the ordered arrangement and maneuver of units in relation to each other and/or to the enemy in order to utilize their full potentialities." Generally tactics address the combat employment of individual units and their major components—ships, aircraft, and major weapons systems. Tactics are often specific to particular forces, technologies, opponents, climates and other circumstances—they advise individual forces or commanders how to use force capabilities. Tactics are in conformance with overall military doctrine and specific tactical doctrine.

Tactical doctrine organizes TTPs--it is the "play book" from which tactics are chosen and ordered. Multinational tactical doctrine is created for multinational operations and is normally designed for use by national forces operating in a multinational context. Joint tactical doctrine is created for joint operations and is designed to be used normally by the joint tactical-level commander. Multi-Service tactical doctrine, created by multi-Service commands for multi-Service operations or in support of other multi-Service concerns such as programming, is designed to be used by the individual Service tactical-level commander operating in a multi-Service environment or in the absence of joint or Service-unique tactical doctrine. Service-specific tactical doctrine exists for use outside of joint or multi-Service environments or in their absence. Tactical doctrine might, therefore, be created by multinational, joint, multi-Service, or Service organizations.

As an example of the relationship between tactical doctrine and tactics, we have: (1) the functional antisubmarine warfare doctrine found in the Allied Antisubmarine Warfare Manual (ATP [Allied Tactical Publication]-28); the national navy doctrine expressing the relationship between the antisubmarine warfare commander and the overall composite warfare commander found in the Composite Warfare Commander's Manual (U) (NWP [Naval Warfare Publication] 10-1); and a variety of navy signals to execute antisubmarine warfare

tactics found in the Allied Maritime Tactical Signal and Maneuvering Book (ATP-1, Volume II). Tactics is the selection and employment by the navy tactical commander of a particular employment and movement of forces from these three tactical doctrine "play books." The national navy commander routinely operates his task group's movements in accordance with general antisubmarine warfare guidance in ATP 28, signals executed in accordance with ATP-1, while still remaining within a national composite commanders' structure outlined in NWP 10-1. Indeed, the U.S. Navy has no national joint, multi-Service, or Service counterpart to ATP-1 and thoroughly relies on this NATO tactical doctrine for its contents.

Techniques are more specific instructions than are general tactics. They apply to operation of individual systems and forces in particular functions. Techniques may contain some detailed step-by-step operating instructions for equipment. One technique may support one or many tactics. Therefore, techniques are in conformance with tactics.

E; to.

Procedures, detailed instructions for operation of equipment or units aimed at the operator, are often more rigid and directive than other levels of tactical guidance. This rigidity is most frequently based on technical limits of weapons, ships, aircraft, an other equipment. One set of procedures may support many techniques and tactics. Thus, procedures are in conformance with techniques.

Commands issue standing orders, operations orders, tactical memos, and similar local tactical directives which supplement those provided by the Service. These directives draw upon the first principles of military doctrine, individual conditions, the tools of tactics, techniques, and procedures, and the desires of local commanders. These command directives may introduce new tactics that exploit new uses of equipment or forces.

Rules of engagement (ROE) are "directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered." They are orders with force of law that draw legitimacy from the authority of national or international law, or the intrinsic authority of the combat commander or his subordinate who issues them. Although one might question the inclusion of ROEs in a list of items affected by military doctrine, ROEs cannot help but be influenced by doctrine. The political leadership of a nation or of a multinational organization or coalition will prepare, in general terms, the initial guidance for ROEs. It will be the military, in their capacity as advisors to the leadership, who will then have to ensure that this broad guidance is written in terms familiar to the military. Where current military doctrine would be severely affected by the proposed ROEs, it is likely than an adjustment will be made.

ROEs do not constitute fundamental principles since ROEs are not enduring; ROEs set limits for the application of those principles and supporting tactics, techniques, and procedures based on law of war, political constraints, or commander's prerogative. ROEs are, therefore, not doctrine. ROEs, on the other hand, must be supported by military doctrine. The need to establish ROEs is itself doctrine.

Initial training is naturally done in conformance with doctrine. Advanced training and education may encourage explorations beyond current doctrine, but initially, forces must have some basis of understanding of what they are expected to do. Training, thus, is one of the most important aspects of military doctrine.³⁵ Indeed, it is not by accident that the Army's TRADOC has cognizance over both doctrine and training/education. Military doctrine will also affect exercises, games, and simulations developed in support of training and education. In this new era of jointness, doctrinal publications taught at the various war and command and staff colleges are the primary source documents for individuals of other Services to learn about the capabilities and styles of warfare of other Services. In reality, doctrine influences training and education, which then in turn influences future doctrinal development.

Doctrine education affords the military the opportunity to "tell its story" to the average American citizen, who today increasingly has no military experience, and often a cynical perception of the military's competence. In its broader educational process, the military has the opportunity to explain to the average voter its culture and world view in words understandable to civilians. If our military doctrine is honest, explicit, comprehensive, and understandable, it may help educate the voter and will in turn help the citizen make better informed decisions of interest to the military. After all, the ultimate size, roles, and employment of the armed forces are ultimately up to the average American citizen and the voter's elected representatives and <u>not</u> a result of decisions reached within the military profession itself.

As doctrine for war has evolved, often organization and force structure changed as well. Normally, when a new type of technology is introduced in the military, some existing organization acts as its initial sponsor. Later, as the technology is refined and a doctrine is formulated for its use, a separate organization is created whose central identity is that new technology. Witness the evolution of offices responsible for naval aviation. In cases where a doctrinal concept precedes a technology, an organization may come about to manage its development as in the Strategic Defense Initiatives Office (SDIO). Of course the creation of Service, multi-Service, and joint doctrinal organizations is a direct result of doctrine itself. "Doctrine is inadequate without an organization to administer the tasks involved in selecting, testing, and evaluating 'inventions'."

Analyses of force capability are generally undertaken with the assumption that the forces will act within the bounds of their doctrine. When considering alternative modes of employment or alternative capabilities, we obviously need baseline studies of how well the force can perform with existing hardware and under existing military doctrine. Such baseline studies serve as comparison to improvements sought under programming.

The Army's TRADOC has cognizance over both doctrinal development for current forces as well as setting military doctrine for the future and thereby making a major input to programming.³⁷ The naval Services are currently engaged in the creation of formal written military doctrine for current forces. They are also exploring alternative concepts for the

employment of naval forces of the future. Naval doctrine will obviously move, in the future, into the area of programming.

One of the major inputs to military doctrine, in the absence of existing written doctrine, is campaign planning. In addition, campaign plans <u>must</u> subsequently be affected by military doctrine. Officers who are assigned to commands where campaigns are planned will naturally bring with them their individual Service or combat arms doctrine. Joint and multinational doctrine will form the basis for joint and multinational campaign planning.

Similarly, strategy must be affected by campaign planning, which is influenced by military doctrine itself. For strategic-level assets such as centrally-controlled nuclear weapons, strategy will be directly affected by the military doctrine for their employment. Indeed, the 1993-1994 Nuclear Posture Review will result in the basis of a new military doctrine for nuclear weapons which, according to the Secretary of Defense, will affect revised declaratory policy.³⁸

We might also make the case that current policy is ultimately affected by revised strategy which in turn was affected by military doctrine. Military doctrine can stabilize and even constrain a new government from making radical departures in policy. Military doctrine represents the capability of the military, and capability should be one of the major inputs into national military policy.

Finally, the different types of military doctrine affect other types of military doctrine. As long'as military formations normally operate in conjunction with other different types of formations, they cannot help affecting each other. Planning combined arms operations within one service, joint interactions between Services, and those on a multinational basis all require that one branch of the military knows how the other plans to act.

Simply put, military doctrine affects how we fight, train, exercise, organize, what we buy, and how we plan.

What Naval Doctrine is NOT!

Clouding the use of the term doctrine is its use in descriptions that are more tactically or functionally-oriented at the local level. For example, according to Joint Publication 1-02, local airbase doctrine governs the use of afterburners and high power.³⁹ Also, command, control and information systems and command, control, communications, and computer systems are both defined in terms of an integrated system of doctrine, procedures, organizational structure, personnel, equipment, facilities and communications.

The U.S. Army tends to use doctrine to define the procedures used for carrying out tasks by even the individual soldier. Anyone who develops doctrine can define its content and level of consideration. By definition, multi-Service doctrine does not primarily intrude into the strategic-level of warfare. Since the vast majority of campaigns, in the future, will be joint or

multinational, naval doctrine is <u>not</u> a substitute for joint or multinational doctrine. Service and multi-Service doctrine serves as an "input" to joint and multinational doctrine and can guide operations when joint and multinational doctrine do not exist or are inappropriate.

Multi-Service <u>naval</u> doctrine serves as the bridge between higher-level policy documents and strategy and TTPs. Just as there are some Joint TTPs there will also be some multi-Service naval TTPs dealing with the multi-Service naval environment. Individual Navy and Marine Corps TTPs will remain the domain of the individual Services. Multi-Service <u>naval</u> doctrine, therefore, will primarily concern itself with the operational-level of warfare and it will influence both the strategic and tactical-levels. The Naval Doctrine Command does not intend that doctrine replace the word tactics nor that <u>naval</u> doctrine extend into the tactical-level of warfare other than to shape and guide multi-Service naval or Navy and Marine Corps individual Service TTP. Service unique tactical-level Navy or Marine Corps doctrine exists one level below multi-Service <u>naval</u> doctrine.

Doctrine Gestapo?

Doctrine is a form of policy. Less perishable than current policy, it is policy nonetheless. General policy is not designed to standardize behavior--military doctrine is. Once doctrine, in whatever form, exists, there will obviously be created a system to enforce consistency with other doctrinal pronouncements. As formal military doctrine evolves within the naval Services, the consistency issue will have to be addressed. In the meantime, emphasis at NDC is being placed upon the writing of formal multi-Service and formal Navy Service-unique doctrine for the first time.

The CJCS is responsible for developing joint doctrine and has had, for some time, evaluation agents responsible for the planning, coordination, and conduct of doctrinal evaluations. For the CJCS, the evaluation agent is normally the Joint Doctrine Center (JDC) soon to be retitled the Joint Warfighting Center (JWFC). The Joint Staff also sponsors a Joint Doctrine Working Party (JDWP), which is a joint doctrine forum that includes representatives of the Services and combatant commands with the purpose of systematic addressal of joint doctrine and joint tactics, techniques, and procedures (JTTP). Of course the Unified Action Armed Forces (UNAAF) is a "publication setting forth the principles, doctrines, and functions governing the activities and performance of the Armed Forces of the United States when two or more Services or elements thereof are acting together" [emphasis added].⁴⁰

Joint doctrine is primarily written for the combatant commanders, the Unified CinCs. With the combatant commanders as the customers, and under the Goldwater-Nichols Act, the Services play an <u>extremely</u> important role, but do not have "veto power" over joint doctrine. Generally, the Services train and equip the military but the Unified CinCs fight the forces-recognizing the new role of the U.S. Atlantic Command and the special role that U.S. Special Operations Command play in training and equipping forces. The CJCS is the final arbiter of what eventually becomes joint doctrine. Service "input" to joint doctrine is done

during the development process via the CinCs Service component, by comments from the Service themselves, and via Service officers assigned to the Joint and CinC staffs. Service and multi-Service doctrine commands and centers play an important role in that process.

Service doctrine consistency with joint doctrine is an issue that is bound to be raised in the future, once the Services have published their own formal doctrine. At that time, there may be a struggle over inconsistencies, since Service doctrine is not supposed to be inconsistent with joint doctrine. One issue that some Services, in other countries, have had trouble with is which Service doctrine should dominate operations when a second Service is acting in support of another. In the Soviet Union in the 1970-80s there existed a major literature debate over the role of Long Range Aviation acting in support of the Navy. The essential question was whether Air Force operational arte(what they term doctrine) would continue to govern the behavior of specialized aircraft supporting the Navy or should it be naval operational art. Although a system of joint doctrine should preclude problems such as this, these will obviously be debating points while developing such doctrine.

NATO has addressed the doctrine standardization issue with two definitions. Commonality is "a state achieved when groups of individuals, organizations, or nations use common doctrine, procedures, or equipment." Standardization is "the process of developing concepts, doctrines, procedures and designs to achieve and maintain the most effective levels of compatibility, interoperability, interchangeability and commonality in the fields of operations, administration and material." Doctrine provides the basis for commonality and standardization so that different types of forces can work together by building a common understanding and approach to the tasks they are given.

The degree of desired standardization and consistency of Service and national doctrines really depends upon the degree of integration of the fighting forces involved. Where two Services routinely operate together, such as segments of the Navy and Marine Corps and Army and Air Force, one would expect to see a high level of standardization on doctrinal issues. When national units fight together, however, they often do not do so as an integrated whole. For example, in the Pacific theater of World War II, the British Pacific Fleet was given its own area of operations in which they could operate in accordance with their own military doctrine. This model changed sometime after this war and today, British naval forces can operate as an integrated part of NATO fleets commanded by American officers and run in accordance with NATO naval doctrine. Of course, in Operation Desert Storm, the U.S. Army operated in one area and multinational ground forces in another.

Another fear is that, once written doctrine exists, commanders will be held accountable for deviations that fail. These were the same fears that aviators expressed decades ago when the Navy introduced their TTP publications series NATOPS [naval air training and operating procedures standardization]. Military doctrine, like existing TTP, has reliable authority but it is not definitive. Its purpose is not to dictate dogmatic action. Rejection of accepted military doctrine and substitution of other premises may be necessary if the conditions of a specific operation depart those for which doctrine was developed. Doctrine, like NATOPS,

should not, however, be discarded without careful consideration of the consequences. If it is discarded, sufficient instruction must be given to subordinates to ensure they understand the principles that will be applied instead. When doctrine is rejected, the commander making that decision must ensure that his revisions and their results are evaluated for inclusion in the full body of Service doctrine. With military doctrine we can gain standardization, without relinquishing freedom of judgment and the commander's need to exercise initiative in battle.

Doctrine should express its own degree of latitude. If implementing directives for doctrine state that it is directive, then its policies govern. If the implementing directives state that they are guidance, then they are just that. Naval doctrine is to be authoritative but not directive.⁴¹ In short, there is no need to fear that doctrine gestapo will force Army doctrine on the Navy or that joint doctrine will force naval doctrine into ideological conformity. At least for the present, a "hundred flowers will bloom." If our doctrinal development is sound, there is no need to fear the joint lawn mower.

Conclusions

Military doctrine comprises concise but comprehensive statements of principles and practices for the conduct of warfare for current situations. These principles and practices have been validated and are thus considered authoritative, but not necessarily directive. Doctrine is evolving and dynamic. Although we attempt to make military doctrine timeless and enduring, in reality it must be responsive to current policies, resources, strategy, campaign concepts, doctrine, threats, and fielded and emerging technology—none of which are timeless and enduring. Military doctrine provides us a common cultural perspective—telling us how to think about war. Military doctrine captures the historical perspective and lessons learned during past wars, the essential nature of war and conflict in our own time, and anticipates the technological and intellectual developments that will bring us victory in the future. In other words, military doctrine provides a bridge or common thread leading from the past to the present and future.

Military doctrine's primary attribute is that it consists of fundamental principles, not specific procedures, that guide the employment of forces. Military doctrine defines, in general terms, the nature of forces and a rational basis for their use. It is a commonly understood and shared framework upon which specific operations can be planned and executed. It represents a body of common thought meant to be exploited as a guide by all forces in an operation that supports effective action with minimum detailed direction. Military doctrine is not a set of orders that govern operations. Military doctrine provides a commander with the experiences of others confronted with similar situations.

Well-developed military doctrine eases requirements for operational commanders to communicate detailed instructions for operations to subordinates for a specific operation. In the absence of orders and in the absence of communications, a subordinate who acts in accordance with military doctrine has a better probability of conforming with his superior's wishes than would otherwise be the case.

Military doctrine is the starting point from which we develop solutions and options to address the specific warfighting demands and challenges we face in conducting military operations other than war. In a chaotic combat environment, military doctrine has a cohesive effect on our forces. It promotes mutually understood terminology, relationships, responsibilities, and processes, thus freeing the commander to focus on the overall conduct of combat. Military doctrine is conceptual—a shared way of harmonious thinking that is not directive. Military doctrine guides our actions toward well-defined goals and provides the basis for mutual understanding within and among the Services and the national policy makers.

Military doctrine "is a compilation of principles and policies developed through experience or theory that represents the best available thought and indicate and guide but do not bind in practice. Its purpose is to provide that understanding within a force which generates mutual confidence between the commander and his subordinates in order that timely and effective action will be taken by all concerned in the absence of instructions."

These words indicate the importance of theory as an input to military doctrine—necessary for doctrine for new weapons systems technologies or warfare techniques that have no history.

346

Military "doctrine is like a compass bearing; it gives us the general direction of our course. We may deviate from that course on occasion, but the heading provides a common purpose to all who travel along the way. This puts a grave burden on those who formulate doctrine, for a small error, even a minute deviation, in our compass bearing upon setting out, may place us many miles from the target at the end of our flight. If those who distill doctrine from experience or devise it by logical inference in the abstract fail to exercise the utmost rigor in their thinking, the whole service suffers."

Navy doctrine is the art of the admiral.⁴⁴ It is not an exact science and it primarily exists to support the combat actions and decisions of our flag and commanding officers. "Success in war [has] depended on the admiral's ability to organize a body of ships into a disciplined fleet, capable of obeying his instructions and signals. Only when his fleet was properly organized was he in a position to execute such tactics against the enemy...Nor could the admiral expect wholehearted support for a form of attack of which the captains did not approve or which they did not thoroughly understand."

<u>Naval</u> doctrine is a particular form of multi-Service doctrine; the doctrine governing the U.S. Navy and U.S. Marine Corps in coordinated action toward common objectives. As such, it is primarily oriented toward the operational-level of warfare. Naval doctrine will first consider warfighting aspects but will eventually include military operations other than war. Naval doctrine is an input and supplement to joint and multinational doctrine and forms an input to Navy and Marine Corps Service-specific doctrine.

According to the naval Services' first formal military doctrine publication, *Naval Warfare*, NDP [Naval Doctrine Publication]-1: "doctrine is the heart of naval warfare. It governs our actions beyond the ordered execution of military operations, but is not

prescriptive. Within the broader guidelines of national strategy, doctrine provides the basis for mutual understanding and trust within our naval Services as well as with other Services and our national leaders. It is not a set of concrete rules, but rather a basis of common understanding throughout the chain of command. Composed of 'shared convictions' that guide naval forces as a whole, it fuses our Service-unique tactics, techniques, procedures, and warfighting philosophies" (emphasis added).⁴⁶

Although much navy and naval doctrine has been unwritten in the past, analysis of how naval forces and navies have acted allows us to disclose the underlying doctrine beneath these actions.⁴⁷ If those actions were subject to after-action scrutiny or censure, then it can be established that those actions were not in conformance with established doctrine. Where actions were not challenged, they probably were in accordance with established doctrine, although they might not have been. Through the disciple of history, we can establish the existence and content of naval and navy doctrine even if that doctrine was not formally written.

From a historical analysis of past naval and navy doctrine, we are able to learn the various forms that doctrine has taken in the sea services, what are the enduring doctrinal issues that are not dependent upon technology or countries, the problems associated with the introduction, preparation, and change of doctrine, and the measures of effectiveness for doctrine. These are all valuable lessons that can be learned and will serve to better develop naval doctrine in the United States today.

Notes '

- 1. Webster's II New Riverside University Dictionary, Boston, MA: The Riverside Publishing Co., 1984, 1988. The lack of a universally accepted definition of doctrine was addressed by Dr. Donald S. Marshall in his essay on "Doctrine" in the International Military and Defense Encyclopedia, Colonel Trevor N. Dupuy, USA (Ret.), ed., Washington, DC & New York, NY: 1993, vol. 2 C-F, p. 773-775.
- 2. In this author's opinion, the *Basic National Defense Doctrine* probably went beyond the province of the uniformed Services and intruded into the area of government policy.
- 3. Joint Staff, Proposed Joint Publication 0-1, Basic National Defense Doctrine, 27 January 1992 draft version, p. iv.
- 4. Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02, Washington, DC: U.S. Government Printing Office, March 23, 1994. This document will be used for all definitions hereafter unless otherwise noted. It is important to note that the Joint Electronic Library (JEL) is routinely used to update the paper edition of this publication. The CD-ROM version of the JEL is more current than the paper. The on-line version of the JEL is even more up to date. Unfortunately, one needs to consult the electronic version to ensure currency of terms.

- 5. Theoretically, if a definition appears in Joint Publication 1-02, it has been accepted by all of the Services. Where other definitions appear in individual Service publications, it indicates a slight deviation due to an apparent attempt to translate that definition into more familiar Service terms.
- 6. "Doctrine-fundamental principles by which military forces guide their actions in support of national objectives. Doctrine is authoritative but requires judgement in application," Headquarters, Department of the Army, FM [Field Manual] 100-5 Operations, Washington, DC: U.S.Government Printing Office, 14 June 1993, Glossary p. 3. This definition is also used in the draft revised version of the Dictionary of United States Army Terms, Army Regulation 25-X. That draft also defines "doctrinal and tactical training" in the following way: "Training provided to commanders, staffs, leaders, and operators on how to employ a new system. It is a component of both new equipment training and displaced equipment training. Tactics and techniques are covered through battle drills and situational training exercises which embody the 'how to fight' doctrine." [emphasis added]
- 7. "Aerospace doctrine is, simply defined, what we hold true about aerospace power and the best way to do the job in the Air Force." Headquarters, Department of the Air Force, Basic Aerospace Doctrine of the United States Air Force, Air Force Manual [AFM 1-1] 1-1, Vol. I, Washington, DC: U.S. Government Printing Office, March 1992, p. vii. Interestingly, in the formal glossary found in Vol. II, p. 282, doctrine is defined using the Joint Pub. 1-02 definition along with definitions attributed to specific individuals. The previous edition of AFM 1-1 had several Air Force approved definitions of doctrine, such as: "Aerospace doctrine is a statement of officially sanctioned beliefs and warfighting principles which describe and guide the proper use of aerospace forces in military action." Headquarters, Department of the Air Force, Basic Aerospace Doctrine of the United States Air Force, AFM 1-1, Washington, DC, 16 March 1984, p. v. Doctrine is not defined in the Air Force Glossary of Standardized Terms, AFM 11-1, 29 September 1989.
- 8. "Doctrine is a teaching advanced as the fundamental beliefs of the Marine Corps on the subject of war, from its nature and theory to its preparation and conduct. Doctrine establishes a particular way of thinking about war and a way of fighting, a philosophy for leading Marines in combat, a mandate for professionalism, and a common language. In short, it establishes the way we practice our profession." Headquarters, United States Marine Corps, Warfighting, FMFM [Fleet Marine Force Manual] 1, Washington, DC: 6 March 1989, p. 43. Doctrine is not defined in the USMC [U.S. Marine Corps] Supplement to DoD [Department of Defense] Dictionary of Military Terms, FMFRP [Fleet Marine Force Reference Publication] 0-14, 27 January 1994.
- 9. "The doctrine defines standard concepts and terms for execution of current operations, and for the derivation of operational planning factors which are required for the formulation of programs and the analysis of readiness." Department of the Navy, Strategic Concepts of the U.S. Navy, NWP [Naval Warfare Publication] 1 (Rev. A), May 1978. Doctrine is not defined in Naval Terminology, NWP 3 (Rev. E).

- 10. Joint Chiefs of Staff, *Joint Warfare of the US Armed Forces*, Joint Publication 1, Washington, DC: National Defense University Press, 11 November 1991, p. 5-6.
- 11. John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982, TRADOC [Training and Doctrine Command] Historical Monograph Series, Washington, DC: U.S. Government Printing Office, June 1984, p. 65; and Richard G. Davis, The 31 Initiatives, Washington, DC: Office of Air Force History, 1987, p. 2, 25-33.
- 12. Richard G. Davis, *The 31 Initiatives*, Washington, DC: Office of Air Force History, 1987, p. 81-82.
- 13. There is obvious concern at multi-Service doctrine centers about their role and long-term viability. There are benefits for retaining such organizations. For example, sponsoring Services retain direct control over the operations of such agencies--generally outside of the formal joint process and without the required participation of the Joint Staff and the staffs from the joint Commanders-in-Chief (CinCs). Multi-Service doctrinal activities offer sponsoring Services the ability to directly coordinate their input, generally at a lower level of activity. Also, multi-Service doctrine offers a mechanism for coordinated doctrinal development in support of the participating Services.
- 14. Chairman of the Joint Chiefs of Staff, *Doctrine for Joint Operations*, Joint Publication 3-0, Washington, DC: The Joint Staff, 9 September 1993, p. VI-1 VI-16.
- 15. North Atlantic Treaty Organization, Military Agency for Standardization (MAS), NATO Glossary of Terms and Definitions (English and French), AAP-6(T), 1992, p. 2-D-5. This document serves as the source for NATO terms used in this paper.
- 16. Discussed by a number of European participants at the "Role of International Navies after the Cold War Symposium," sponsored by the Naval War College and Georgetown University at Georgetown University, Friday, March 25, 1994. Specifically, the war colleges of France, Germany, Italy, Spain, and the United Kingdom are collectively preparing such a military doctrine during 1994.
- 17. For a thorough discussion of the differences between concepts, doctrine, and principles, see Major General I[rving]. B[rinton]. Holley, Jr., U.S. Air Force Reserve (Ret.), "Concepts, Doctrine, Principles: Are You Sure You Understand These Terms?" Air University Review, 35, no. 5 (July-August 1984): 90-93.
- 18. Joint Chiefs of Staff, National Military Strategy of the United States, Washington, DC: U.S. Government Printing Office, January 1992.
- 19. The White House, National Security Strategy of the United States, Washington, DC: U.S. Government Printing Office, January 1993.

- 20. The Weinberger Doctrine appears first as a speech: "The Uses of Military Power," Remarks Prepared for Deliver by the Honorable Casper W. Weinberger, Secretary of Defense, to the National Press Club, Washington, DC, Wednesday, November 28, 1984, and were distributed by the Office of Assistant Secretary of Defense (Public Affairs) News Release No. 609-84. A slightly modified version then appears in: Casper W. Weinberger, Annual Report to the Congress, Fiscal Year 1987, Washington, DC: U.S. Government Printing Office, February 5, 1986, p. 78-81. For an analysis of this doctrine, see Alan Ned Sabrosky and Robert L. Sloane, The Recourse to War: An Appraisal of the "Weinberger Doctrine," Washington, DC: U.S. Government Printing Office, for Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1988.
- 21. Les Aspin, Secretary of Defense, Report of the Bottom-Up Review, Washington, DC: U.S. Government Printing Office, October 1993, p. 9 and his Annual Report to the President and the Congress, Washington, DC: U.S. Government Printing Office, January 1994, p. 65-66 contain a political-military "doctrine" for peacekeeping or peace enforcement missions, much the same as that articulated in the earlier Weinberger doctrine. This "doctrine" has apparently been codified as Presidential Decision Directive 25. See New York Times report "Clinton sets rules for U.S. involvement in U.N. peacekeeping," The Virginia-Pilot and the Ledger Star, Friday, May 6, 1994, p. A9; and U.S. Department of State, The Clinton Administration's Policy on Reforming Multilateral Peace Operations, Washington, DC, May 1994.
- 22. Les Aspin, Secretary of Defense, Report of the Bottom-Up Review, Washington, DC: U.S. Government Printing Office, October 1993.
- 23. For an example of how this was done in the Bush administration, see: James J. Tritten, Our New National Security Strategy: America Promises to Come Back, Westport, CT: Praeger, 1992, p. 1-16.
- 24. Casper W. Weinberger, Secretary of Defense, Annual Report to the Congress Fiscal Year 1985, Washington, DC: U.S. Government Printing Office, February 1984, p. 193-194, 267.
- 25. Stephen Peter Rosen, Winning the Next War: Innovation and the Modern Military, Ithaca, NY: Cornell University Press, 1991, p. 66-67, 80-85.
- 26. Barton Gellman, "Pentagon War Scenarios Spotlights Russia, Washington *Post*, February 20, 1992, p. 1, citing a February 4, 1992 "1994-1999 Defense Planning Guidance [DPG] Scenario Set for Final Coordination."
- 27. This would have to be done internally to avoid sending the wrong signals to other nations.
- 28. I am indebted to Colonel John Collins, USA (Ret.), now at the Congressional Research Service, for discussing this point with me. Colonel Collins feels strongly that military

doctrine should drive campaign plans. Although I agree, I recognize that in doctrinal voids, one must start somewhere. Where prepared campaign concepts exist, they serve as an excellent input to a blank computer screen.

- 29. This statement is in specific contradiction to the assumption to the contrary contained in Lieutenant Commander Scott A. Hastings, USN, prize-winning essay "Is There a Doctrine In the House?" U.S. Naval Institute *Proceedings*, 120, no. 4 (April 1994): 35. The existence and form of current naval and navy doctrine will be the subject of a series of similar papers prepared at the Naval Doctrine Command.
- 30. Tactics, techniques, and procedures (TTP) are not doctrine.
- 31. Lieutenant Colonel Dennis M. Drew, USAF, "Of Trees and Leaves: A New View of Doctrine," Air University Review, 33, no. 2 (January-February 1982): 42.
- 32. In his prize-winning essay, Lieutenant Commander Dudley W. Knox, USN, "The Rôle of Doctrine in Naval Warfare," U.S. Naval Institute *Proceedings*, 41, no. 2 (March-April 1915): 325-354, the author uses British, French, and German historical examples to illustrate his call for doctrine.
- 33. Major General I[rving]. B[rinton]. Holley, Jr., USAFR, "The Doctrinal Process: Some Suggested Steps," *Military Review*, 59, no. 4 (April 1979): 5-8. The influence of secondary literature on official doctrine is significant but difficult to prove. On the one hand, we have the case of the writings of experts as an acknowledged source of international law. At the other extreme, we have the creation of operational war and contingency plans, within the military itself. Yet even at this extreme where the military performs a task totally without formal external interaction, there cannot help but be influenced by their education, training, and exercises which have been shaped by doctrine. Many of these factors have themselves been shaped by classic works of history and theory such as the writings of: Rear Admiral Alfred Thayer Mahan, USN; Professor Julian Stafford Corbett; and Admiral Raoul Victor Patrice Castex, FRN.
- 34. Before the Battle of Trafalgar, Napoleon Bonaparte reportedly instructed Vice Admiral Pierre Charles Jean-Baptiste Silvestre, Comte de Villeneuve, to count two Spanish ships as the equivalent to one French. See Captain Alfred Thayer Mahan, USN, *The Influence of Sea Power Upon the French Revolution and Empire*, 1793-1812, New York, NY: Greenwood Press, Publishers, 1968 [reprint of Little, Brown & Co. edition of 1892], vol. I, p. 78.
- 35. A British Army publication commences with the definition of doctrine as "put most simply, doctrine is what is taught." Chief of the General Staff, *Design for Military Operations--The British Military Doctrine*, Army Code No. 71451, D/CGC/50/8, 1989.
- 36. I[rving]. B[rinton]. Holley, Jr., Ideas and Weapons: Exploitation of the Aerial Weapon by the United States During World War I; A Study in the Relationship of Technological Advance, Military Doctrine, and the Development of Weapons, Washington, DC: U.S.

Government Printing Office, 1983 for the Office of Air Force History [originally published in 1953 by Yale University Press], p. 19.

- 37. The Army is writing a new doctrinal publication, Future Full-Dimensional Operations, TRADOC Pamphlet 525-5, to do just this.
- 38. Les Aspin, Annual Report to the President and the Congress, Washington, DC: U.S. Government Printing Office, January 1994, p. 62-63.
- 39. See definition of "gate" in Joint Publication 1-02.
- 40. The Joint Chiefs of Staff, Unified Action Armed Forces (UNAAF), JCS Publication 0-2, Washington, DC: The Joint Staff, 1 December 1986. The Joint Publication 1-02 definition of the UNAAF used in the text of this paper is slightly different than that found on page 1 of the UNAAF itself: "This publication sets forth principles and doctrines to govern the joint activities and performance of the armed forces of the United States. It provides military guidance for the exercise of authority by commanders of unified and specified commands and other joint force commanders and prescribes doctrine for joint operations and training. It provides military guidance for use by armed forces in the preparation of their respective detailed plans."
- 41. The current head of TRADOC recently emphasized that Army doctrine is not prescriptive. The complexities of attempting to deal with the uncertain future appear to make the U.S. Army less willing to state that their current doctrine is anything more than "as 'nearly right' as it can be." See: General Frederick M. Franks, Jr., USA, "Army Doctrine and the New Strategic Environment," Ethnic Conflict and Regional Instability: Implications for U.S. Policy and Army Roles and Missions, Robert L. Pfaltzgraff, Jr. and Richard H. Shultz, Jr., eds., Washington, DC: U.S. Government Printing Office for the U.S. Army War College Strategic Studies Institute, 1994, p. 275-280. Similarly, is a response to an article in the U.S. Naval Institute Proceedings, the Commander of the Naval Doctrine Command made the same point that naval doctrine is not prescriptive nor directive. See Rear Admiral Frederick Lewis, USN, "Is There a Doctrine in the House?" [Comment and Discussion], U.S. Naval Institute Proceedings, 120, no. 6 (June 1994): 24.
- 42. Joint Chiefs of Staff, Dictionary of United States Military Terms for Joint Usage [formerly Restricted], Washington, DC: Joint Chiefs of Staff, June 1948, p. 36. I am indebted to Major General I[rving]. B[rinton]. Holley, Jr., USAFR (Ret.) for pointing out this definition to me in a letter to the author dated June 9, 1994.
- 43. [Brigader General] I[rving]. B[rinton]. Holley, Jr., "An Enduring Challenge: The Problem of Air Force Doctrine," Colorado Springs, CO: U.S. Air Force Academy, The Harmon Memorial Lectures in Military History, no. 16, 1974, p. 3.
- 44. General John M. Shalikashvili, USA, Chairman of the Joint Chiefs of Staff, wrote in a recent memo that "joint doctrine is flag officer business." See his memorandum for the

- CinCs, CM-193-94 of 4 April 1994. "The Art of the Admiral" is the title of the Introduction in Brian Tunstall, Naval Warfare in the Age of Sail: The Evolution of Fighting Tactics 1650-1815, Dr. Nicholas Tracy, ed., Annapolis, MD: Naval Institute Press, 1990, p. 1.
- 45. Brian Tunstall, Naval Warfare in the Age of Sail: The Evolution of Fighting Tactics 1650-1815, Dr. Nicholas Tracy, ed., Annapolis, MD: Naval Institute Press, 1990, p. 1.
- 46. Naval Doctrine Command, Naval Warfare, NDP-1, Washington, DC: U.S. Government Printing Office, 28 March 1994, p. 50.
- 47. The early Italian campaign of Napoleon Bonaparte was conducted without formal written doctrine. Yet those officers who participated in the campaign were "indoctrinated" with new concept and methods of warfare, giving them an advantage over those who had served elsewhere. See Lieutenant Commander Dudley W. Knox, USN, "The Rôle of Doctrine in Naval Warfare," U.S. Naval Institute *Proceedings*, 41, no. 2 (March-April 1915): 341.

DISTRIBUTION LIST

Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	. 1
Naval Doctrine Development Division Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	1
Joint/Combined Doctrine Division Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	1
Strategy and Concepts Division Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	1
Technical and Financial Division Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	1
Science Advisor Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	1
Dr. James J. Tritten Naval Doctrine Command 8952 First Street, Suite 200 Norfolk, VA 23511-3790	3
CAPT Wayne Hughes, USN (Ret.) Code OR/Hl Department of Operations Research Naval Postgraduate School Monterey, CA 93943-5100	1
Dr. Susan Canedy Office of the Command Historian Attn: ATMH U.S. Army Training and Doctrine Command Fort Monroe, VA 23651	1
CAPT Peter Swartz, USN (Ret.) Center for Naval Analyses (CNA) 4401 Ford Avenue Alexandria, VA 22302-0268	. 1

Library Naval Historical Center Building 57 Washington Navy Yard 901 M Street, S.E. Washington, DC 20374-0571	
Joint Doctrine Center Attn: Joint Electronic Library (JEL) 1283 CV Towway, Suite 100 Norfolk, VA 23511-1065	1
Library Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268	1
Armed Forces Staff College Attn: LIB/62 7800 Hampton Blvd. Norfolk, VA 23511-1702	1
Defense Technical Information Center Attn: DTIC-OCC Building 5 Cameron Station Alexandria, VA 22304-6145	2
Dr. Gideon Y. Akavia CEMA - Center for Military Analyses P.O. Box 2250 (28) 31021 Haifa, Israel - via air mail -	1
Dr. Roger Barnett Joint Operations Division - Code 12 Naval War College 686 Cushing Road Newport, RI 02841	1
COL John Collins, USA (Ret.) Congressional Research Service Library of Congress, LM-315 Madison Building 1st and Independence Avenues, S.E. Washington, DC 20540	1
CAPT George Conner, USN Code OR/Co Department of Operations Research Naval Postgraduate School Monterey, CA 93943-5100	1

•	Professor André Delaporte Chef de la Section Historique du Service Historique de la Marine Pavillion de la Reine Château de Vincennes B.P. N° 2 00300 Ameés, France - via air mail -	1
-	CAPT Alain Delbury, FRN French Military Mission to SACLANT 7857 Blandy Road, Suite 100 Norfolk, VA 23551-2490	1
-	CAPT Theodore Ferriter, USN Air-Land-Sea Applications (ALSA) Center 114 Andrews Street, Suite 101 Langley AFB, VA 23665-2785	1
	Rear Admiral José Ignacio González-Aller Hierro, SPN (Ret.) Director Museo Naval de Madrid Paseo del Prado, 5 28071 Madrid, España - via air mail -	1
	CAPT Jaime Goyeness, SPN Spanish Military Mission to SACLANT 7857 Blandy Road, Suite 100 Norfolk, VA 23551-2490	1
	Dr. Thomas Grassey Editor, Naval War College Review - Code 32 Naval War College 686 Cushing Road Newport, RI 02841-1207	1
	Eric J. Grove Department of Politics Centre for Security Studies The University of Hull Hull HU6 7RX United Kingdom - via air mail -	1
	Dr. John Hattendorf Director, Advanced Research Department - Code 35 Naval War College 686 Cushing Road Newport, RI 02841-1207	1
	Dr. Thomas C. Hone Strategic Planning, Air-7153 Naval Air Systems Command 1421 Jefferson Davis Highway Arlington, VA 22243-7100	1

		4
	Dr. Edward J. Marolda Head, Contemporary History Branch Naval Historical Center Building 57 Washington Navy Yard 901 M Street, S.E. Washington, DC 20374-0571	1
	CAPT Thom Ford, USN Navy Element ATTN: ATZL-SWL-N U.S. Army Command & General Staff College Ft. Leavenworth, KS 66027-6900	. 1
•	CDR Michael Vitale, USN Joint Doctrine Division The Pentagon, Room 1A724 Washington, DC 20318-7000	1
-	LTC Dave Mirra, USMC Doctrine Division - C42 Marine Corps Combat Development Command (MCCDC) 2042 Broadway, Suite 205 Quantico, VA 22134-5021	1
	LTG I.B. Holley, USAFR (Ret.) Professor Emeritus Department of History 226 Carr Building - East Campus Duke University P.O. Box 90719 Durham, NC 27708-0719	1
	CAPT Jack McCaffrie, RAN Director General, Maritime Studies Program ANZAC Park West APW2-G-11 Department of Defence Canberra ACT 2600 Australia - via air mail -	1
	Joint Doctrine Division Air Force Doctrine Center 216 Sweeney Blvd., Suite 109 Langley AFB, VA 23665-2792	1
	Headquarters Joint Doctrine Division Deputy Chief of Staff for Doctrine Attn: ATDO-J U.S. Army Training and Doctrine Command Fort Monroe, VA 23651	1

	,
Dr. John H. Johns Dean of Faculty and Programs Industrial College of the Armed Forces, Room 228 Fort Leslie J. McNair Washington, DC 20319-6000	1
Professor Kevin Kelly National Strategy Decisionmaking Department - Code 1B Naval War College 686 Cushing Road Newport, RI 02841-1207	1
Commander Alfredo Maglietta, ITN Administrative Assistant to the Commander Italian Naval War College Livorno, Italy - via air mail -	1
Andrew Marshall OSD/NA, Pentagon Room 3A930 Director, Net Assessment Office of the Secretary of Defense Washington, DC 20301	1
Dr. Donald S. Marshall Director of Publications Peabody & Essex Museum East India Square Salem, MA 01970	1
CAPT Ryan McCombie, USN ATTN: USAWC/AWC-J Army War College Carlisle Barracks, PA 17013-5050	1
Dr. James A. Mowbray Code AWC/DFX Air War College Maxwell AFB, AL 36112-6427	1
CAPT Christopher Nelson, USN (Ret.) TACTRAGRULANT 2132 Regulus Avenue	1
FCTCLANT Dam Neck Virginia Beach, VA 23461-5596	
CAPT Michael F. O'Brien, USN Code: NDU-INSS-ROSA Institute for National Strategic Studies, Room 314 National Defense University	1
Fort Leslie J. McNair Washington, DC 20319-6000	•

•		3
	Professor Paul Odell Strategy Department - Code 1A Naval War College 686 Cushing Road Newport, RI 02841-1207	1
	CAPT Chris Page, RN Head of Defence Studies (RN) Room 5391 Main Building Ministry of Defence - Whitehall London SW1A 2HB United Kingdom - via air mail -	1
	Dr. Michael Palmer 1411 Cadenza Court Greenville, NC 27858	1
	CAPT John N. Petrie, USN Director of Writing & Research Code: NWC-NWFA National War College Ft. Leslie J. McNair Washington, DC 20319-6000	1
	Dr. Bruce Powers N-88W, Pentagon Room 4E367 Office of the Chief of Naval Operations Washington, DC 20350-2000	1
Í	COL Jon Stull, USMC Armed Forces Staff College, Code DDCD 7800 Hampton Boulevard Norfolk, VA 23511-1702	1
	LTC John Taxeras, USMC Attn: Code C400P2 Marine Corps University Marine Corps Combat Development Command (MCCDC) 2076 South Street Quantico, VA 22134-5021	1
	Dr. Geoffrey Till Department of History and International Affairs King Williams Walk Royal Naval College Greenwich London SE10 9NN United Kingdom - via air mail -	1
-	Professor Michael Wallace C472-1866 Main Mall Department of Political Science The University of British Columbia Vancouver, British Columbia V6T 1Z1 Canada - via air mail -	1

CAPT George Wilson, USN Code: AU/CCN Air War College 325 Chennault Circle Maxwell AFB, AL 36112-6427	1
RADM James Winnefeld, USN (Ret.) The RAND Corporation 2100 M Street, N.W. Washington, DC 20037-1270	1